

USA-010

- 29 -

REMARKS

Claims 1-30 are pending, claims 17-30 have been allowed, claims 14 and 15 have been objected to, and claims 1-13, and 16 have been rejected. Independent claims 1 and 17 and dependent claims 2, 3, 15, 18, 19 and 24 have been amended to clarify Applicant's invention. Dependent claims 2, 3, 15, 18, 19 and 24 have been amended to correct errors of a typographical nature only.

Though not conceding to the Examiner's position, Applicant has amended independent claim 1 to better clarify Applicant's present invention. Reconsideration and further examination of claims 1-19, and 24 is respectfully requested.

Support for Applicant's clarifications and amendments can be found throughout Applicant's specification with specific references noted in the remarks that follow.

OFFICE ACTION ITEM NUMBER 1 & 2EXAMINER'S REJECTIONS UNDER 35 USC § 102(b)

Claims 1-8, 10-12, and 16 stand rejected under 35 USC § 102(b) as being anticipated by Miller et al 5,959,869 ('869).

Applicant regards the present invention as **an audit-credit-interactive system for interconnection with a vending machine controller (VMC) and a computing platform**. In this configuration the computing platform by way of Applicant's present invention can monitor vending machine activity, and selectively control vending machine vending cycles.

USA-010

- 30 -

With respect to Applicant's present invention Applicant would like to clarify the following:

1. How Applicant's audit-credit-interactive system interconnects with a vending machine's vending machine controller (VMC); and
2. The interrelationship between Applicant's vending machine interface and Applicant's interactive interface. That is, how a computing platform interconnected to Applicant's interactive interface can, **based in part on data communicated between Applicant's audit-credit-interactive system and the vending machine's VMC**, monitor vending machine activity, and selectively control vending machine vending cycles.

Applicant contends Applicant's present invention recites patentable, novel and non-obvious features in view of the art disclosed by the cited references. One such patentable, novel and non-obvious feature not taught or suggested by any cited reference individually including Miller et al or in combination is the manner in which, **Applicant's audit-credit-interactive system interconnects with a VMC and a computing platform in such a manner as to allow the computing platform to monitor and selectively control a vending machine.**

In an exemplary embodiment Applicant's audit-credit-interactive system is interconnected to the VMC by way of Applicant's vending machine interface. The VMC would in turn be interconnected with a vending machine. In this regard, **Applicant's audit-credit-interactive system is not a VMC, as taught by Miller et al, but rather interconnects with a VMC. As such, Applicant's vending machine interface is different then suggested by the Examiner.**

USA-010

- 31 -

In Applicant's specification page 22 lines 16-22, Applicant teaches operating Applicant's audit-credit-interactive system as a peripheral device interconnected with a vending machine's VMC:

---

Applicant's specification page 22 lines 16-22:

"In accordance with NAMA and other derivative MDB specifications the MDB interface 518 operates in the slave mode being responsive to the vending machine controller (VMC). The VMC typically resides in the vending equipment and operates as the vending equipment's control system. Interconnection with the MDB bus in combination with NAMA and other derivative MDB standard data communications allows the audit-credit-interactive system 500 to reside as a peripheral device to the vending equipment's control system in an auditing and payment device mode of operation."

---

A feature of Millers VMC is a MDB bus 222; however Miller's MDB bus 222 operates in accordance with NAMA standards (Miller et al column 5 lines 7-10) in a master mode of operation (Miller et al column 11 lines 11-24). When implementing an MDB interface, Applicant's vending machine interface is as a slave mode MDB peripheral (Applicant's specification page 22 lines 16-22). As such Applicant contends Applicant's vending machine interface (as clarified in independent claim 1 as interconnecting with a vending machine VMC) has a different purpose and function than Miller's MDB 222 bus as suggested by the Examiner.

Applicant has amended independent claim 1 to better clarify that Applicant's vending machine interface is different than Miller's MDB 222 bus by clarifying that

USA-010

- 32 -

Applicant's audit-credit-interactive system interconnects to a VMC and that the VMC interconnects with a vending machine.

Interconnection of Applicant's present invention to a VMC in this manner offers Applicant certain advantages. One such advantage is that Applicant's audit-credit-interactive system can enable a computing platform interconnected with Applicant's interactive interface to monitor and selectively control the VMC/vending machine vending cycles. In this regard, the computing platform need not support an MDB interface, which is 9-bit serial, and optically isolated. Such an interface is uncommon for many brands of microprocessors, microcontrollers, and computing platforms including most PC based platforms.

Applicant has amended claim 1 shown in part below to clarify the interconnection between Applicant's vending machine interface and the vending machine VMC.

---

Claim 1:

1. (Amended) **An audit-credit-interactive system, said system comprising:**

a microcontroller;

a vending machine interface interconnected with said microcontroller, **said audit-credit-interactive system, by way of said vending machine interface, interconnects to and data communicates with a vending machine controller, said vending machine controller is interconnected to and controls a vending machine;**

.....

.....

USA-010

- 33 -

---

With respect to Miller et al, the Examiner relies upon Miller et al for "[disclosing] a vending machine interface interconnecting to multi-drop-bus (MDB 222)" (Office Action page 2 item 2) as teaching Applicant's vending machine interface. Applicant respectfully disagrees. Miller et al teaches a vending machine controller (VMC) (Miller et al title, abstract line 1, column 3 lines 23-28) – Applicant teaches a peripheral device for interconnection to a VMC.

Furthermore, Applicant contends Applicant's present invention recites patentable, novel and non-obvious features in view of the art disclosed by the cited references. Another such patentable, novel and non-obvious feature not taught or suggested by any cited reference individually including Miller et al or in combination is the manner in which, **Applicant creates and utilizes an interrelationship between Applicant's vending machine interface and Applicant's interactive interface to enable Applicant's audit-credit-interactive system while data communicating with the VMC to data communicate with an interconnected computing platform. Such data communications with the computing platform enables the computing platform to receive interpolate vending machine data and assert monitoring and selective control of the vending machine's vending cycle.**

Applicant's interactive interface feature enables the interconnection of a computing platform with Applicant's audit-credit-interactive system. Once interconnected to Applicant's audit-credit-interactive system the computing platform can, **by way of Applicant's interactive interface and based in part on data communicated between Applicant's audit-credit-interactive system and the VMC, monitor and selectively control vending machine vending cycles.**

USA-010

- 34 -

As one example, in Applicant's specification page 5 lines 22-27, Applicant teaches utilizing an interconnected computing platform to monitor vending machine activity, and selectively control the vending machine vending cycles:

---

Applicant's specification page 5 lines 22-27:

**"The present invention also relates to a system and method which effectuates an interactive interface and protocol for interfacing the system to and data communicating with a computing platform, wherein the computing platform can elect to control by way of the interactive interface and protocol the vending transaction cycle or alternatively elect to monitor the system by way of the interactive interface and protocol allowing the system to control the vending transaction cycle. "**

---

To clarify further, it is the interrelationship between the Applicant's interconnection with the VMC and the computing platform that once established, enables the computing platform to operate in at least two different modes of operation. In a first or **passive mode of operation the computing platform monitors the vending machine** including vending machine vending cycles. While in the passive mode Applicant's audit-credit-interactive system effectuates control of the vending cycles.

Alternatively, in a second or **active mode of operation the computing platform can actively control the vending machine's vending cycles** including starting vend

USA-010

- 35 -

sessions, accounting for vended goods and services, and terminating vending cycles. While in the active mode Applicant's audit-credit-interactive system effectuates data communication with the VMC and the computing platform. Such data communication can provide to the computing platform over site control, status monitoring, and command initiation capabilities.

In an exemplary embodiment, the computing platform can base its actions on result data obtained from Applicant's audit-credit-interactive system regarding various statuses of the vending machine and current vending cycle detail. In this regard, such result data, statuses, and vending cycle detail are first determined by the audit-credit-interactive system resultant from data communication between the audit-credit-interactive system and the VMC and then made available to the interconnected computing platform.

To accomplish the passive and active modes of monitoring vending machine activity, and selectively controlling the vending machine vending cycles Applicant's present invention implements an interactive interface protocol (See Applicant's specification starting on page 27 line 1 through page 58 line 10). In this regard, **the computing platform based in part on data communicated between Applicant's audit-credit-interactive system and the vending machine controller can data** communicate with Applicant's audit-credit-interactive system to receive interpolated vending machine communication data, statuses, and operational data. In addition, the interconnected computing platform can selectively data communicate with Applicant's audit-credit-interactive system to invoke and control the vending machine and vending cycles.



USA-010

- 36 -

As one example, in Applicant's specification starting on page 27 line 16 through page 28 line 4, Applicant teaches two modes of operation - monitoring of and selective control of vending cycles:

---

Applicant's specification starting on page 27 line 16 through page 28 line 4:

**"The G4 (system 500) version of E-port can utilize a single microcontroller to serve as an MDB controller as well as a cashless payment system platform. The G4 device incorporates an RS232 serial interface by which other computing platforms can interface to and control the functionality of the G4 and associated vending equipment. The G4 version can operate in two modes of operation. In a first mode of operation the G4 provides all the MDB interface control, audit/cashless payment support, and network connectivity. In this mode a computing platform can interact with the G4 in a hybrid role to monitor a string of user text prompts (see DISPLAY PROTOCOL) as well as execute NON-MDB-CONTROL types of commands (see table below).**

**In a second mode of operation the G4 can be configured and serve as an MDB controller (system 500) only. In this mode both the MDB-CONTROL and NON-MDB-CONTROL commands can be executed. While in this mode of operation the computing platform operates as a master device controlling the operation and process flow of the system. While in this mode the G4 serves as a slave device interfacing to the vending machine and managing the control of the MDB interface."**

---

In another example, in Applicant's specification starting on page 44 line 13 through page 45 line 9, Applicant teaches further the two modes of operation - monitoring of and selective control of vending cycles:

---



USA-010

- 37 -

Applicant's specification starting on page 44 line 13 through page 45 line 9:

"@<esc>Y- TOGGLE G4 VEND ACTIVE MODE ON/OFF. The G4 can operate in two modes of operation. In the VEND ACTIVE 'ON' mode of operation the G4 provides all the MDB interface control, audit/cashless payment support, and network connectivity. In this mode a computing platform can interact with the G4 in a hybrid role to monitor a string of user text prompts (see DISPLAY PROTOCOL) as well as execute the NON-MDB-CONTROL commands.

In the VEND ACTIVE 'OFF' mode of operation the G4 can be configured and serve as an MDB controller only. In this mode both the MDB-CONTROL and NON-MDB-CONTROL commands can be executed. While in this mode of operation the computing platform operates as a master device controlling the operation and process flow of the system, and the G4 serves as a slave device interfacing to the vending machine and managing the control of the MDB interface..."

The interrelationship between Applicant's vending machine interface and interactive interface in Applicant's audit-credit-interactive system is a feature Applicant regards as patentable, novel and non-obvious in view of the art disclosed by the cite references and offers Applicant's present invention certain advantages.

One advantage in Applicant's present invention is that the computing platform can allow Applicant's audit-credit-interactive system to interact with the vending machine's controller to facilitate and effectuate vending transaction cycles while the computing platform monitors, for example, text prompts as to the current state and status of the transaction cycle.

As one example, in Applicant's specification starting on page 56 line 5 through page 57 line 10 shown below, Applicant teaches a passive mode of operation wherein the

USA-010

- 38 -

interconnected computing platform receives a string of text prompts for display, and printing:

---

Applicant's specification starting on page 56 line 5 through page 57 line 10:

"The G4 supplies text prompts in a fixed format. The format supports two lines of text each line being a maximum of 16 characters. The format includes a leading character, which indicates the line (line 1 or 2) the text should be displayed on, up to 16 characters of text to be displayed, and a trailing character to indicate the end of the text message. When possible the text message should be formatted to contain 16 bytes. Leading spaces and trailing spaces can be used to position the text message and format the text string to 16 bytes.

The leading character conforms to the format supported by many text LCD display modules. The leading character will be a hex \$80 to indicate the text message should be displayed on line 1 of the display area. A hex \$C0 will indicate the text message should be displayed on line 2 of the display area.

The trailing character will be a hex \$F8. The trailing character indicates the end of the text message.

Text message format:

Lead Character =	\$80 - Line 1
	\$C0 - Line 2
Trailing Character =	\$F8

[Lead Character]+[Up to 16 bytes of text message]+[Trailing Character]

**Example:**     \$80+[ Swipe A Valid ]+\$F8  
                 \$C0+[ Credit Card ]+\$F8

USA-010

- 39 -

The above will display ' Swipe a Valid ' on line 1 of the display area, and  
' Credit Card ' on line 2 of the display area."

---

Applicant teaches many examples of how a vending cycle can be started, monitored, and terminated throughout Applicant's specification and in particular in Applicant's specification starting on page 27 line 1 through page 58 line 10.

As one example, in an exemplary embodiment Applicant's card reader processor board 312 can be a computing platform. In this regard, the card reader processor board 312 can receive the text string for display on display 306 and printing on printer mechanism 328. In addition card reader 310 can read magnetic cards and send the data to the audit-credit-interactive system where a determination to start a vending cycle can be made/initiated (See Applicant's Figures 3A-3F and corresponding text, figure 6A-B and corresponding text, specification page 11 line 15-26, and starting on page 46 line 26 through page 48 line 17).

Another advantage in Applicant's present invention is that the computing platform can monitor and selectively control vending transaction cycles by monitoring information obtained by way of Applicant's vending machine interface effectuate data communications with the VMC, such data being processed by Applicant's microcontroller, and data communicate as needed to the interconnected computing platform. This data can include for example the current state of the vending machine.

As one example, in Applicant's specification starting on page 30 line 12 through page 33 line 9 shown in part below, Applicant teaches a way in which the interconnected computing platform can obtain vending machine status data in which to base monitoring and selective control decision on:



USA-010

- 40 -

"@<esc>V – REQUEST FOR MDB TRANSACTION STRING DATA. The result string will return:

**STX+[S]+[xxxxxx Field #1 6 bytes]+[xxxxxx Field #2 6 bytes]+[xxxx Field #3 4 bytes]+[F]+ETX+LRC**

Where 'xxx...' denotes fixed length fields. These fields should be right justified and have leading zeros added to fix the length of each field. For example \$1.50 should be represented as 000150.

The 'S' field is the state current MDB state. Valid states include:

<u>State</u>	<u>Description</u>
I	Inactive
D	Disable
E	Enabled
S	In Session
V	Vend

**Valid Vending States**

**Field #1** is the MAX VEND PRICE as reported by the vending machine controller (VMC) during the MDB Initialization process. This is a 6-byte field.

**Field #2** is the SALE PRICE. The SALE PRICE is determined in the MDB protocol for the VEND – Request Command (See. NAMA Multi Drop Bus (MDB)/Internal Protocol Version 1.0, and 2.0 specifications).

**Field #3** is the COLUMN information. The COLUMN information is determined in the MDB protocol for the VEND – Request Command (See. NAMA Multi Drop Bus (MDB)/Internal Protocol Version 1.0, and 2.0 specifications).

USA-010

- 41 -

The 'F' field is the MDB transaction condition flag. Valid flag states include:

State	Description
C	Clear
\$	Currency vend has occurred
P	Vend pending
V	Cashless vend has occurred
F	Vend fail

**Valid Flag States**

The 'C' flag is set when the MDB transaction string is cleared. The '\$' flag is set when a VEND CASH MDB transaction occurs. The 'P' flag is set when a VEND - APPROVED MDB command is issued and remains valid until the VEND SUCCESSFUL or VEND FAIL MDB command is issued. The 'F' flag is set when a VEND FAILS.

Examples of MDB transaction strings:

STX+[E00015000000000000C]+ETX+LRC	-> Enabled, MAX Vend price \$1.50, transaction string in cleared state
STX+[S00015000000000000C]+ETX+LRC	-> In session, MAX Vend price \$1.50, transaction string in cleared state
STX+[V0001500001000002P]+ETX+LRC	-> Vend state, MAX Vend price \$1.50, sale price \$1.00, vend from column 2, vend pending
STX+[E0001500001000002V]+ETX+LRC	-> Enable state, MAX Vend price, \$1.50, sale price \$1.00, vend from column 2, vend complete
STX+[E0001500001250003\$]+ETX+LRC	-> Enable state, MAX Vend price \$1.50, sale price \$1.25, vend from column 3, cash vend"

USA-010

- 42 -

---

Applicant has amended independent claim 1 to clarify Applicant's interactive interface feature **and the interrelationship between Applicant's vending machine interface and Applicant's interactive interface**. The clarification of these features are shown in bold below:

---

1. (Amended) An audit-credit-interactive system, said system comprising:

a microcontroller;

a vending machine interface interconnected with said microcontroller, said audit-credit-interactive system, by way of said vending machine interface, interconnects to and data communicates with a vending machine controller, said vending machine controller is interconnected to and controls a vending machine; and

an interactive interface interconnected with said microcontroller, said interactive interface interconnects said audit-credit-interactive system to a computing platform, **said computing platform, by way of said interactive interface and based in part on data communicated between said audit-credit-interactive system and said vending machine controller, monitors said vending machine activity, and selectively controls said vending machine vending cycles.**

---

With respect to the interconnection of Applicant's audit-credit-interactive system and a computing platform by way of Applicant's interactive interface, the Examiner has suggested that Miller et al '869 "[discloses] an interactive interface ..... for interfacing the audit-credit-interactive system to a computing platform...." (Office Action page 2

USA-010

- 43 -

item 2). Applicant respectfully disagrees, and requests that the Examiner reconsider in view of Applicant's clarification and amendments.

Applicant contends Miller et al does not teach or suggest Applicant's interactive interface. Nor does Miller et al teach or suggest Applicant's interrelationship between a vending machine interface and an interactive interface that enables a computing platform, by way of an interactive interface and based in part on data communicated between Applicant's audit-credit-interactive system and a vending machine controller (VMC), to monitor vending machine activity, and selectively control vending machine vending cycles.

Applicant contends that in view of the aforementioned amendments and clarification, amended independent claim 1 is patentable, novel, and non-obvious in view of the art disclosed by the cited references and requests that the Examiner remove the rejection and allow amended independent claim 1.

With respect to dependent claims 2-16 Applicant contends with amendments to amended independent claim 1 from which dependent claims 2-16 depend, and Applicant's clarification, dependent claims 2-16 include patentable, novel, and non-obvious features in view of the art disclosed by the cited references, and are allowable as ultimately depending on an allowable claim. Applicant requests that the Examiner remove the rejections and allow dependent claims 2-16.

OFFICE ACTION ITEM NUMBER 3 & 4

EXAMINER'S REJECTIONS UNDER 35 USC § 103(a)

Claim 9 stand rejected under 35 USC § 103(a) as being unpatentable over Miller et al '869 in view of Konsmo et al 5,844,808 ('808).

USA-010

- 44 -

With respect to dependent claim 9, Applicant contends with amendments to amended independent claim 1 from which dependent claim 9 depends, and Applicant's clarification, dependent claim 9 include patentable, novel, and non-obvious features in view of the art disclosed by the cited references, and are allowable as ultimately depending on an allowable claim. Applicant requests that the Examiner remove the rejections and allow dependent claim 9.

OFFICE ACTION ITEM NUMBER 5

EXAMINER'S REJECTIONS UNDER 35 USC § 103(a)

Claim 13 stand rejected under 35 USC § 103(a) as being unpatentable over Miller et al '869 in view of Defosse 6,457,038 ('038).

With respect to dependent claim 13, Applicant contends with amendments to amended independent claim 1 from which dependent claim 13 depends, and Applicant's clarification, dependent claim 13 include patentable, novel, and non-obvious features in view of the art disclosed by the cited references, and are allowable as ultimately depending on an allowable claim. Applicant requests that the Examiner remove the rejections and allow dependent claim 13.

OFFICE ACTION ITEM NUMBER 6

EXAMINER'S OBJECTION TO CLAIMS 14 & 15

The Examiner notes (Office action page 4 item 6) that claims 14 and 15 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claims and intervening claims.



USA-010

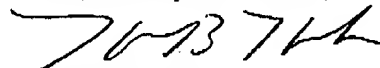
- 45 -

With respect to dependent claims 14 and 15, Applicant contends with amendments to amended independent claim 1 from which dependent claims 14 and 15 depends, and Applicant's clarification, dependent claims 14 and 15 include patentable, novel, and non-obvious features in view of the art disclosed by the cited references, and are allowable as ultimately depending on an allowable claim. Applicant requests that the Examiner remove the objections and allow dependent claims 14 and 15.

CONCLUSION

Applicant respectfully requests reconsideration and further examination of all claims 1-19, and 24. Applicant submits that in view of the amendments and remarks set forth above, this application is in condition for allowance and requests early notification to this effect.

Respectfully Submitted,



H. Brock Kolls,

Applicant; and Agent For Assignee

Agent Reg. No. 42,757

Dated: October 14, 2002

H. Brock Kolls

USA Technologies, Inc.

Dept. IP

200 Plant Ave.

Wayne, PA 19087

Phone: 610-989-0340

USA-010

- 46 -

I hereby certify that this correspondence is being transmitted by fax to the United States Patent and

Trademark Office at phone number 703-872-9326 on October 14, 2002

by

76-13 764

H. Brock Kolls



USA-010

- 47 -

VERSION WITH MARKINGS TO SHOW CHANGES MADE  
IN THE SPECIFICATION

## Item #1

Replace the paragraph on page 2 lines 4-9 with the following paragraph:

Recent trends in the vending industry have been to offer higher priced items out of vending equipment at traditionally unattended vending locations. Higher priced item offers can result from the desire to vend larger portions of products such as the twenty-ounce soda bottle verse the twelve-ounce soda can. In other cases the higher priced items can be items that until recently may not have been considered for sale through vending equipment such as phone cards, disposable cameras, and frozen food entrees to name a few.

## Item #2

Replace the paragraph on page 2 lines 11-20 with the following paragraph:

The vending industry's[ies] desire to vend higher priced items has given rise to issues related to currency and inventory. For example, with the shift to vending twenty-ounce bottles many of the vending sales now involve more than one currency note, as an example two one-dollar bills to make a purchase. As a result the bill validator can fill to capacity with currency notes before all the items in the vending equipment have been sold. With a bill acceptor filled to capacity the vending equipment may not be able to transact another vending sale and place itself out-of-service. As a result vending operators can typically find themselves restocking vending equipment that still has product available for sale but because of the inability to take additional currency notes the vending equipment could not sell the inventory.

USA-010

- 48 -

## Item #3

Replace the paragraph on page 3 lines 6-14 with the following paragraph:

In addition to the new burden on bill acceptors and coin mechanism resultant from the sale of higher priced items other issues related to the vending of higher priced items can arise. One such issue can be that a customer may not have enough money on-hand to effectuate the vending purchase. In the case of phone cards, cameras, and frozen food vend prices may range from several dollars to forty dollars, fifty dollars, or more. In many cases the customer may have the desire to purchase the high priced item but simply lacks the amount of currency required to effectuate the purchase. In other cases the customer may be reluctant to trust the vend worthiness of the vending equipment with what the customer considers to be a significant amount of money.

## Item #4

Replace the paragraph on page 6 lines 8-15 with the following paragraph:

The present invention also relates to a system having a plurality of configurable communication options for data communicating to a plurality of remote locations. Such communication options include local area network connection, telephone line, wireless point-to-point where the system data communicates wirelessly to a local transceiver base unit which has access to a telephone line thereby giv[e]ing the system wireless access to a telephone line, and wireless network data communication access, wherein a data modem connects the system to a WAN for data communication access to a plurality of remote locations.



USA-010

- 49 -

## Item #5

Replace the paragraph on page 7 lines 7-8 with the following paragraph:

The present invention also relates to the system 500 being packaged in a semiconductor creating a single chip system 500 solution.

## Item #6

Replace the paragraph on page 9 lines 1-3 with the following paragraph:

Figure 9B there is shown an audit-credit-interactive system 500 interfacing to a vending machine MDB bus and interfacing to a plurality of peripheral devices by way of a system 500 mimic MDB bus;

## Item #7

Replace the paragraph on page 9 lines 5-8 with the following paragraph:

Figure 9C there is shown an audit-credit-interactive system 500 with card reader and audit functionality embodiment interfacing to a vending machine MDB bus and interfacing to a plurality of peripheral devices by way of a system 500 mimic MDB bus;

## Item #8

Replace the paragraph starting on page 10 line 22 through page 11 line 5 with the following paragraph:

Vending machine types suitable for interconnection to and operation with the VIU 100 include vending beverage and snack machines, value adding equipment, and dispensing equipment that operate[s] in connection with or make[s] available an MDB bus interface, or DEX interface, or a bill acceptor interface, or a coin mechanism

USA-010

- 50 -

interface. Such vending machines include for example and not limitation those manufactured by or for COKE-A-COLA, PEPSI, MARS, VENDO, ROYAL, DIXIE NARCO, GPL, CRANE NATIONAL, AUTOMATED PRODUCTS, CAVALIER, MARCONI or other similar vending machines. Such value adding equipment and dispensing equipment can include for example and not limitation those manufactured by or for ACT, XCP, SCHLUMBERGH, DAYNL, GILBARCO, MARCONI, COPICO, PRE-PAID EXPRESS, or other similar value adding equipment and dispensing equipment.

Item #9

Replace the paragraph on page 11 lines 11-13 with the following paragraph:

Audit-credit-interactive system 500 electronics are included within the VIU 100. Many of the electrical interfaces, ports, and connectors shown in Figure 1 are [in] actually electrical connection to the audit-credit-interactive system 500.

Item #10

Replace the paragraph on page 12 lines 1-13 with the following paragraph:

VIU 100 also includes auxiliary interface port 104 and 106. Though general purpose in nature in an exemplary embodiment [P]ports 104, and 106 provide electrical connections to printer interface 532, and external modem interface 528 respectively. The [P]ports 104, and 106 can be RS232, RS484, or other desirable type of communication interface port. Furthermore ports 104, and 106 can be configured for use as required by the desired application. In an exemplary embodiment auxiliary interface port 104 can be used for interfacing to a serial style printer and port 106 can be used to interface to external communication equipment such as data modem, CDMA modems, CDPD modem, wireless transceivers, wireless systems, or other types of communication

USA-010

- 51 -

devices. In an exemplary embodiment an AES wireless transceiver can be used to provide data communication to and from the VIU 100 as well as serve as repeater to receive and re-transmit data communication to and from other VIU 100 types of devices in the geographical area.

## Item #11

Replace the paragraph on page 13 lines 16-25 with the following paragraph:

VIU 100 also includes a general-purpose input-output interface 118. The general-purpose input-output interface provides electrical connections to the bill and coin interface 506. In an exemplary embodiment the VIU 100 can be interconnected with vending, valuing, and dispensing equipment by way of the host equipment's bill acceptor or coin interface port. This allows the VIU 100 by way of the bill and coin interface 506 and interface 118 to be original equipment manufactured (OEM) into or retrofitted to vending, valuing, and dispensing equipment that utilize a serial or pulse style bill acceptor, or a coin mechanism interface. Serial and pulse style bill acceptors include for example and not limitation those manufactured for or by MARS, COINCO, CONLUX, ARDAK, or other similar bill acceptor and manufacturers of bill acceptors.

## Item #12

Replace the paragraph on page 14 lines 1-4 with the following paragraph:

The VIU 100 includes a service button 120 and a ground terminal 122. The service button provides one of a plurality of electrical connections to the keypad and button inputs 510. The ground terminal 122 provides, as may be required, electrical connection to the VIU 100 enclosure.

USA-010

- 52 -

## Item #13

Replace the paragraph on page 14 lines 11-19 with the following paragraph:

Referring to Figure 2 there is shown a transceiver and modem base unit 200. Transceiver and modem base unit 200 includes transceiver unit 700 built in. The transceiver unit 200 with transceiver unit 700 data communicates wirelessly with the VIU 100 and by way of a modem data communicates with a remote location. In an exemplary embodiment the VIU 100 with system 500 and transceiver unit 200 with transceiver unit 700 form a wireless data link, which has access to a modem for data communicating with a remote location. In this regard, the reliance on having a telecommunication line in proximity to the VIU 100 or more generally in proximity to the vending equipment the VIU 100 is installed in is greatly reduced.

## Item #14

Replace the paragraph starting on page 17 line 25 through page 18 line 5 with the following paragraph:

In an exemplary embodiment a VIU 100 can be located inside the vending equipment, such as vending equipment 402. In addition, the card reader assembly with optional printer assembly can be mounted inside the vending equipment in such a way that a user has access to the card reader assembly. During operation a communication line can be interconnected directly with the VIU 100. Alternatively the VIU can wireless data communicate with a transceiver base unit 200. There is shown in Figure 4 a transceiver unit 200 plugged into an electrical outlet on wall 202. Also shown is a telecommunication line 408 interconnect with transceiver unit 200.

a



USA-010

- 53 -

## Item #15

Replace the paragraph on page 18 lines 13-18 with the following paragraph:

The audit-credit-interactive system 500 provides three major components of functionality. As an audit device the audit-credit-interactive system 500 can audit inventory, sales, operational and other vending machine performance by way of the MDB and DEX interfaces. This gathering and forwarding to a plurality of remote locations of the DEX and or MDB data can be referred to as vending equipment telemetry, or as telemetry data.

## Item #16

Replace the paragraph on page 19 lines 4-17 with the following paragraph:

The audit-credit-interactive system 500 includes numerous mutually exclusive interfaces and control means. In a plurality of customer specifications and where customer cost considerations demand, there may arise a situation where an audit-credit-interactive system 500 may be manufactured in such a way as to not contain or require the use of certain features, functions, interfaces, and or control means. Accordingly, an audit-credit-interactive system 500 can easily be manufactured to include or exclude a specific combination of features, functions, interfaces, and or control means to produce the desired system performance at a desirable cost to a customer. For example and not limitation, a customer may desire to operate an audit-credit-interactive system 500 without an RFID interface 504. In such a case, an audit-credit-interactive system 500 could be manufactured with the omission of the RFID interface 504. In any combination, the same inclusion or exclusion of features, functions, interfaces and or control means can be applied to other audit-credit-interactive system 500 features, functions, interfaces, and or control means.

USA-010

- 54 -

## Item #17

Replace the paragraph on page 19 lines 19-26 with the following paragraph:

Interconnected with microcontroller 502 can be an RFID interface 504. The RFID interface 502 can data communicate with wired or wireless devices that are proximate to the RFID interface 504. In an exemplary embodiment these wired and wireless devices include, for example and not limitation, touch devices from DALLAS SEMICONDUCTOR, and wireless devices such as the MOBIL SPEED PASS, or other similar or suitable wired or wireless RFID devices. Microcontroller 502 can be any suitable microcontroller, or microprocessor. In an exemplary embodiment a microcontroller 502 can be a ZILOG Z8038220FSC.

## Item #18

Replace the paragraph on page 20 lines 1-12 with the following paragraph:

Interconnected with microcontroller 502 can be bill acceptor and coin mechanism interface 506. The bill acceptor and coin mechanism interface 506 emulate industry standard bill acceptor and coin mechanism interfaces. In this regard, the audit-credit-interactive system 500 can be interconnected to vending equipment by way of the interface 506. The audit-credit-interactive system 500 mimicking industry standard bill acceptor and coin mechanism electrical control system and signal timing can then operate the vending equipment. Industry standard bill acceptors include serial and pulse style. Serial style bill acceptors utilize INTERRUPT, SEND, ACCEPT ENABLE, and DATA control signal lines. Pulse style bill acceptor and coin mechanism send electrical pulses to an attached control system to indicated the receipt of coin and currency. Serial and pulse style bill acceptors and coin mechanisms can include for example and not limitation MARS, COINCO, CONLUX, or other similar bill acceptors and or coin mechanisms.

USA-010

- 55 -

## Item #19

Replace the paragraph on page 20 lines 14-19 with the following paragraph:

Interconnected with microcontroller 502 can be a display interface 508. A display interface 508 can be a liquid [display] crystal display (LCD) [display], an RS232 connection, and or an electrical interface for driving a display. In an exemplary embodiment display interface 508 can be, for example and not limitation, an RS232 serial connection. Such a serial connection can be utilized to data communicate display data as well as other types of data to a card reader interface board 312.

## Item #20

Replace the paragraph on page 21 lines 23-27 with the following paragraph:

Interconnected with microcontroller 502 can be an external peripheral interface 536. The external peripheral interface 536 includes a plurality of configurable input and output lines for interfacing to external peripheral devices. External peripheral interface 536 can support serial peripheral interfaces (SPI), serial interfaces such as RS232, RS485, I<sup>2</sup>C, and other types of peripheral interfaces and communication protocols and standards.

## Item #21

Replace the paragraph on page 22 lines 16-22 with the following paragraph:

In accordance with NAMA and other derivative MDB specifications the MDB interface 518 operates in the slave mode being responsive to the vending machine controller (VMC). The VMC typically resides in the vending equipment and operat[ing]es as the vending equipment's control system. Interconnection with the MDB bus in combination with NAMA and other derivative MDB standard data



USA-010

- 56 -

communications allows the audit-credit-interactive system 500 to reside as a peripheral device to the vending equipment's control system in an auditing and payment device mode of operation.

## Item #22

Replace the paragraph on page 25 lines 12-15 with the following paragraph:

In addition to accepting magnet cards card reader interface 526 can implement a smart card reader interface. In this regard, system 500 by way of card reader interface 526 can read, write, and execute embedded applications on a plurality of types and brands of smart cards.

## Item #23

Replace the paragraph starting on page 27 line 26 through page 28 line 4 with the following paragraph:

In a second mode of operation the G4 can be configured and serve as an MDB controller (system 500) only. In this mode both the MDB-CONTROL and NON-MDB-CONTROL commands can be executed. While in this mode of operation [of] the computing platform operates as a master device controlling the operation and process flow of the system. While in this mode the G4 serves as a slave device interfacing to the vending machine and managing the control of the MDB interface.

## Item #24

Replace the paragraph on page 28 lines 16-18 with the following paragraph:

Serial communications between the computing platform and the MDB controller/G4 are set at 9600 baud, 8 data bits, [N]no [P]parity, and 2 [S]stop bits.

USA-010

- 57 -

Required serial port communications lines include transmit (Txd), Receive (Rxd) and Ground (Gnd).

## Item #25

Replace the paragraph starting on page 37 lines 12-19 with the following paragraph:

2. When the MDB capture mode is switched to 'ON' the G4 will stay in this state until either 1) the buffer area for MDB codes is filled (about 15 seconds) or 2) the MDB capture mode is switched to 'OFF'. Even if the G4 is powered 'OFF' or the @<esc> K HARDWARE RESET command is issued the MDB capture mode state will not change. The reason for this is to allow the MDB capture mode to be turned 'ON["'] and remain 'ON' capturing MDB transaction codes between the vending machine and the G4 while the vending machine and or G4 go through a power up or reset procedure.

## Item #26

Replace the paragraph starting on page 42 line 26 through page 43 line 4 with the following paragraph:

@<esc>W – SEND [CURRENT] ALL TRANSACTION RECORDS. The MDB controller/G4

will return all the transaction records beginning with 0000. The G4 will return the message 'DONE' when complete. The transaction records are a fixed length records and follow the format shown above in the @<esc>Q command. The result sting will return:

USA-010

- 58 -

## Item #27

Replace the paragraph on page 43 lines 19-22 with the following paragraph:

If the G4 is in a vending transaction a SEND [CURRENT] ALL TRANSACTION RECORDS transaction cannot be executed. If a SEND [CURRENT] ALL TRANSACTION RECORDS transaction cannot be executed the result string will return:

## Item #28

Replace the paragraph on page 49 lines 20-25 with the following paragraph:

1. The NOVRAM memory dedicated to the storage of DEX data is cleared.
2. The G4 will begin recording both the received DEX codes from the vending machine controller (VMC) and the sent DEX codes from the G4. There is RAM room for approximately 6K bytes of recorded DEX data.

## Item #29

Replace the paragraph on page 51 lines 1-6 with the following paragraph:

1. The NOVRAM memory dedicated to the storage of DEX data is cleared.
2. The G4 will begin recording both the received DEX codes from the vending machine controller (VMC) and the sent DEX codes from the G4. There is RAM room for approximately 6K bytes of recorded DEX data.

## Item #30

Replace the paragraph on page 54 lines 3-9 with the following paragraph:

The communication pins Rxd, Txd, CTS, and RTS conform to RS232 standards. A minimum of Rxd, Txd, and GND are required to implement serial communication

USA-010

- 59 -

between the G4 and a computing platform. The RTS and CTS lines only come into play from a flow control [prospective] perspective when receipt data is being sent from the G4. CTS and RTS are implemented in such a way as to allow a receipt printer that has little to no printer buffer to control the flow of data. CTS and RTS have no other purpose in non-print data communications and can be ignored or left unimplemented.

Item #31

Replace the paragraph starting on page 61 line 20 through page 62 line 2 with the following paragraph:

For example and not limitation print data can be packaged with the format and control codes outlined in the interactive interface protocol and specification shown in the table above. Upon the data arriving at microcontroller 602, microcontroller 602 can decode that the data is print data, remove any protocol formatting characters to obtain pure print data, and then pass or forward the data to the printer interface 608. Similar processes can occur for the other peripheral devices including I/O interface 604, display 606, and card reader interface 610, and keypad and button inputs 612. Data can also [n]be obtained from each of the peripheral devices and combined into a single data string. The data string can be sent to the system 500 where processing can occur based in part of the data string received.

Item #32

Replace the paragraph on page 62 lines 15-22 with the following paragraph:

In an exemplary embodiment the transceiver unit 700 forms a wireless data link with a VIU 100 hav[e]ing a system 500 incorporated within. In this regard, the requirement of physically connecting the VIU 100 to a communication line can be eliminated. To create a wireless data line the VTU 100 equipped with an audit-credit-

USA-010

- 60 -

interactive system 500 utilizes transceiver 524 to data communicate with transceiver unit 700's transceiver 708. Transceiver 708 is interconnected with microcontroller 702. An antenna 716 is interconnected with transceiver 708. Antenna 716 can be of similar form and function to antenna 538.

Item #33

Replace the paragraph on page 63 lines 1-6 with the following paragraph:

A plurality of remote locations can include credit bureaus such as processing bureau 804, host network centers such a host network center 808, and other remote locations such as remote location 806. Processing bureau 804, host network center 808, and remote location 806 can be referred to as a plurality of remote locations or remote locations. Processing bureau 804 can be a credit card processing bureau.

Item #34

Replace the paragraph on page 63 lines 13-20 with the following paragraph:

Referring to Figure 8 there is shown an audit-credit-interactive system 500 interfaced to a computing platform. Figure 8 illustrates how a audit-credit-interactive system 500 can be [data communication] connected to a computing platform 802 by way of system 500's interactive interface 532 and computing platform 802 interactive interface. In similar form and function as the interactive interface solution between system 500 and system 600 described above, system 500 and computing platform 802 can interconnect and data communicate as described with the communication specification and protocol shown in the table above.



USA-010

- 61 -

## Item #35

Replace the paragraph on page 65 lines 19-26 with the following paragraph:

Figure 9B illustrates how an audit-credit-interactive system 500 can be configured in series with the vending machine MDB interface 902. In this regard the peripheral devices can be supported by the system 500's mimic MDB interface 516. The advantage off this network configuration is that the system 500 can support multiple versions and derivative versions of the NAMA MDB protocol specification. Furthermore, the system 500 can provide peripheral message emulation and message passing to effectuate the VMC's ability to data communicate to each peripheral by way of the system 500's MDB interface 518 and mimic MDB interface 516.

## Item #36

Replace the paragraph starting on page 67 line 23 through page 68 line 2 with the following paragraph:

Referring to Figure 10A there is shown an audit-credit-interactive system 500 embodied in a semiconductor package 1002. In an exemplary embodiment a complete system 500 can be manufactured into a single semiconductor. This type of manufacture can have the advantage of small size and low cost. In addition, such a semiconductor version of an audit-credit-interactive system 500 can be advantageous when integration of system 500's functionality into other electronic devices is desirable.

## Item #37

Replace the paragraph starting on page 72 line 17 through page 73 line 2 with the following paragraph:



USA-010

- 62 -

The MDB protocol involves a master-slave relationship between the master vending equipment's VMC and the slave peripheral devices. In implementing the MDB protocol the master VMC initiates an MDB message command to a slave peripheral device. The slave peripheral device then has a finite amount of time to respond to the VMC command message with a message response. As such the amount of time allotted for the peripheral device to respond with a MDB message response can vary from VMC to VMC. If for example and not limitation the peripheral device responds too quickly with a message response the VMC's microprocessor may not be ready and miss the return message. As a result the system 500 could fail to initialize and operate correctly. If for example and not limitation the peripheral device takes too much time to respond to the message the VMC may time-out waiting for the peripherals response message. As a result the system 500 could fail to initialize and operate correctly.

Item #38

Replace the paragraph on page 76 lines 9-14 with the following paragraph:

In decision block 1214 the transceiver system 700 makes a determination as to whether the data received from the system 500 is data intended [from] for system 700 configurations. System 700 can be referred to as the base unit or base. If the resultant is in the affirmative that is the data is configuration data for the base unit processing moves to block 1218. If the resultant is in the negative that is the data is not configuration data for the base unit then processing moves to block 1216.

Item #39

Replace the paragraph on page 78 lines 8-9 with the following paragraph:

In block 1232 the transceiver system 700 sends the ACK message to the system 500 originating the data command. Processing then moves to block 1238.



USA-010

- 63 -

## Item #40

Replace the paragraph on page 78 lines 15-16 with the following paragraph:

In block 1240 the transceiver system 700 sends the ACK message to the system 500 originating the data command. Processing then move back[s] to block 1208.

## Item #41

Replace the paragraph starting on page 78 line 22 through page 79 line 3 with the following paragraph:

Referring to Figure 13 there is shown a local transaction authorization routine 1300. A conventional card authorization through a remote processing bureau utilizing dial-up landline access to the remote processing bureau can take ten or more seconds to complete. In certain vending venues and or while vending certain type of products a ten or more second delay may be unacceptable. In these instances authorization routine 1300 can be implemented to reduce or eliminate the authorization delay while maintaining a high confidence that the card is valid. A card can be any form of ID including a credit card, private label card, smart card, hotel room card, RFID, biometric, and or other similar or suitable form of ID. Processing begins in decision block 1302.

## Item #42

Replace the paragraph on page 79 lines 5-10 with the following paragraph:

In decision block 1302 a determination is made as to whether the LOCAL AUTHORIZATION flag is set for this pass. In an exemplary embodiment system 500 can be programmed to locally authorize a card based in part on an iterative process, which allows for the local authorization routine to be invoked, at a minimum, on the first

USA-010

- 64 -

pass and subsequently at any successive pass, up to the last pass. The last pass is predetermined and is referred to as the MAXIMUM AUTHORIZATION ATTEMPTS.

## Item #43

Replace the paragraph on page 83 lines 5-11 with the following paragraph:

In block 1410 a batch of locally authorized transactions is data communicated to a remote location (the remote location being another country) by way of a network connection. In this regard locally authorized transactions can be moved from the country in which the vending sale occurred to the country where the transactions will be processed with a processing center. Processing then moves to block 1412. The transfer of locally authorized transactions can occur at a predetermined time including hourly, daily, weekly, monthly, or other desirable time interval.

## Item #44

Replace the paragraph on page 85 lines 4-8 with the following paragraph:

In block 1504 the system 500 terminal configuration data is exchanged between the system 500 and the host network servers. This terminal configuration data effectuates the ability to remotely manage the terminal operational parameters including the terminals firmware version from a remote host network center 808. Processing then moves to block 1506.

## Item #45

Replace the paragraph on page 87 lines 22-26 with the following paragraph:

In decision block 1624 a determination is made as to whether the user has pressed the end transaction button. If the resultant is in the affirmative that is the user has pressed

USA-010

- 65 -

the end transaction button then processing moves to block 1626. If the resultant is in the negative that is the user has not pressed the end transaction button then processing moves to decision block 1628.

Item #46

Replace the paragraph on page 88 lines 7-9 with the following paragraph:

In block 1630 the VEND REQUEST command is processed and a VEND APPROVED or VEND DENIED response message is data communicated from the system 500 to the requesting VMC. Processing then moves to decision block 1632.

Item #47

Replace the paragraph on page 89 lines 1-2 with the following paragraph:

In block 1636 the RE-VEND TIMER is reset to zero. Processing then moves to block 1640.

Item #48

Replace the paragraph on page 89 lines 9-14 with the following paragraph:

In decision block 1642 a determination is made as to whether the RE-VEND TIMER has reached the RE-VEND TIMER LIMIT. If the resultant is in the affirmative that is the RE-VEND TIMER has reached the RE-VEND TIMER LIMIT then processing moves back to block 1626. If the resultant is in the negative that is the RE-VEND TIMER has been reached the RE-VEND TIMER LIMIT then processing moves to decision block 1646.

USA-010

- 66 -

Item #49

Replace the paragraph on page 89 lines 16-20 with the following paragraph:

In decision block 1646 a determination is made as to whether the user has pressed the end transaction button. If the resultant is in the affirmative that is the user has pressed the end transaction button then processing moves back to block 1626. If the resultant is in the negative that is the user has not pressed the end transaction button then processing moves to block 1644.

Item #50

Replace the paragraph on page 89 lines 22-26 with the following paragraph:

In decision block 1644 a determination is made as to whether a VEND REQUEST MDB command has been received from the vending equipment's VMC. If the resultant is in the affirmative that is the VEND REQUEST has been received then processing moves to block 1648. If the resultant is in the negative that is the VEND REQUEST command was not received then processing moves back to decision block 16[2]42.

Item #51

Replace the paragraph on page 90 lines 1-3 with the following paragraph:

In block 1648 the VEND REQUEST command is processed and a VEND APPROVED or VEND DENIED response message is data communicated from the system 500 to the requesting VMC. Processing then moves to back to decision block 1632.



USA-010

- 67 -

Item #52

Replace the paragraph on page 90 lines 5-11 with the following paragraph:

Referring to Figure 17 there is shown a data communication sweeping, processing, and data forwarding routine 1700. In an exemplary embodiment the host network center 808 accumulates a plurality of different kinds of parsed data transactions in a temporary data structure. Such a parsing and temporary data structure can be implemented as disclosed in routine 1500. To move the data transactions from the temporary data structure a more permanent data structure and or host network sever routine 1700 can be implemented. Processing begins in block 1702.

Item #53

Replace the paragraph on page 90 lines 13-16 with the following paragraph:

In block 1702 the transactions stored in the temporary data structure are swept into an operational database. Such an operational database can be implemented as a SQL database, ORACLE database, flat file database, DB2 database, and or a combination of different kinds and types of databases. Processing then moves to block 1704.

Item #54

Replace the paragraph on page 90 lines 23-27 with the following paragraph:

In block 1706 any transactions include[ed]ing the previously posted authorized transactions are settled with the processing bureau 804. The process of settlement effectuates the transfer of funds from the cardholder to the merchant. Settlement after the vending sale has occurred can be referred to as post settlement or post settle. Processing then moves to block 1708.



USA-010

- 68 -

Item #55

Replace the paragraph on page 91 lines 1-7 with the following paragraph:

In block 1708 any refund transactions generated by the host network center customer service are processed. Refund transactions can occur when a previously settled transaction requires some portion of the sale amount be refunded to the cardholder. Customer service can generate a refund transaction by querying from an operation database the original transaction and then initiating a refund transaction based in part on the queried customer's original transaction. Processing then moves to block 1710.

Item #56

Replace the paragraph on page 91 lines 15-22 with the following paragraph:

In addition to the convert and forward functionality the data handled can be measured and counted as desired for the purpose of billing for the service of gathering data from a remote system 500 and delivering the data to a customer's desired location. Measurement and counting can include for example and not limitation measuring file and or data size, measuring the frequency the data is gathered, counting the number of times data is gathered and or forwarded, measuring access to the host network center 808, or by other suitable measurement and counting method and or criteria. Processing moves to block 1712.

Item #57

Replace the paragraph starting on page 91 line 24 through page 92 line 2 with the following paragraph:

In block 1712 the funds collected from the processing of transactions can be remitted to the customer as required by EFT or other desirable method. The funds



USA-010

- 69 -

remitted can have service fees deducted from them such that their EFT amount is less than the total processed transaction amount. In this regard customer will not have to be billed for services. The deducting of service fees from the flow of funds can eliminate the need to invoice a customer for service. The routine is then exited.

Item #58

Replace the paragraph on page 92 lines 14-17 with the following paragraph:

In block 1802 the VMC and system 500 exchange[s] MDB message commands by way of the VMC MDB interface 902 and the system 500's MDB interface 518. The system 500 can be referred to as terminal 500 or as the terminal. Processing moves to block 1804.

Item #59

Replace the paragraph on page 93 lines 6-11 with the following paragraph:

In block 1810 the system 500 by way of the mimic MDB interface 516 receives any response MDB message from the coin mechanism. As required the system 500 decodes and determines if the response message from the coin mechanism require[d]s encod[ed]ing and forwarding or passing of the message to the VMC. As determined by the system 500 the message is selectively forwarded to the VMC upon processing returning to block 1802.

Item #60

Replace the paragraph on page 93 lines 13-18 with the following paragraph:

In decision block 1812 a determination is made as to whether the MDB command message is a bill acceptor command message. If the resultant is in the affirmative that is

USA-010

- 70 -

the MDB command message is a bill acceptor MDB command message then processing moves to block 1814. If the resultant is in the negative that is the[n] MDB command message is not a bill acceptor MDB command message then processing moves to decision block 1818.

## Item #61

Replace the paragraph on page 93 lines 20-22 with the following paragraph:

In block 1814 the MDB command message is encoded and forwarded or passed by way of the mimic MDB interface 516 to the bill acceptor. [p]Processing then moves to block 1816.

## Item #62

Replace the paragraph starting on page 93 line 24 through page 94 line 2 with the following paragraph:

In block 1816 the system 500 by way of the mimic MDB interface 516 receives any response MDB message from the bill acceptor. As required the system 500 decodes and determines if the response message from the bill acceptor require[d]s encod[ed]ing and forwarding or passing of the message to the VMC. As determined by the system 500 the message is selectively forwarded to the VMC upon processing returning to block 1802.

## Item #63

Replace the paragraph on page 94 lines 4-9 with the following paragraph:

In decision block 1818 a determination is made as to whether the MDB command message is a card reader or online module (OLM) command message. If the resultant is

USA-010

- 71 -

in the affirmative that is the MDB command message is a card reader or OLM MDB command message then processing moves to block 1820. If the resultant is in the negative that is the[n] MDB command message is not a card reader or OLM MDB command message then processing moves to block 1822.

Item #64

Replace the paragraph on page 95 lines 6-7 with the following paragraph:

In block 1826 the terminal system 500 can manage the data received from the peripheral device as required. Processing moves back to block 1802.



USA-010

- 72 -

IN THE CLAIMS

1 1. (Amended) An audit-credit-interactive system [for interconnecting to a vending  
2 machine, said vending machine having a vending machine controller, said audit-credit-  
3 interactive system being electrically connected to said vending machine controller], said  
4 system comprising:

5  
6 a microcontroller;

7  
8 a vending machine interface interconnected with said microcontroller [for  
9 data communicating with said vending machine controller;], said audit-  
10 credit-interactive system, by way of said vending machine interface,  
11 interconnects to and data communicates with a vending machine  
12 controller, said vending machine controller is interconnected to and  
13 controls a vending machine; and

14  
15 an interactive interface interconnected with said microcontroller, said  
16 interactive interface interconnects [for interfacing] said audit-credit-  
17 interactive system to a computing platform, [wherein] said computing  
18 platform, by way of said interactive interface and based in part on data  
19 communicated between said audit-credit-interactive system and said  
20 vending machine controller, monitors said vending machine activity, and  
21 selectively controls said vending machine vending cycles [data  
22 communicates with said audit-credit-interactive system for the purpose of  
23 monitoring and selectively controlling said vending machine].  
24  
25

USA-010

- 73 -

1 2. (Amended) The audit-credit-interactive system in accordance with claim 1, wherein  
2 said vending machine interface is interconnected to at least one of the following: said  
3 vending machine controller multi-[bus-drop]drop-bus interface (MDB), or said vending  
4 machine controller data exchange interface (DEX).

5  
1 3. (Amended) The audit-credit-interactive system in accordance with claim 1, wherein  
2 said computing platform is at least one of the following: an online module, a card reader,  
3 a cashless payment device, an audit device, a coin mechanism, a bill validator, a personal  
4 computer, [an online module,] a communication module, or a microprocessor based  
5 system.

6  
1 15. (Amended) The audit-credit-interactive system in accordance with claim 14, wherein  
2 said plurality of peripheral devices includes at least one of the following: a coin  
3 mechanism, a bill validator, an online module, a communication module, or a card  
4 reader.

5  
1 17. (Amended) An audit-credit-interactive system for interconnection with a vending  
2 machine, said vending machine having a vending machine controller, said audit-credit-  
3 interactive system being electrically connected to said vending machine controller  
4 comprising:

5  
6 a microcontroller;

7  
8 a vending machine interface interconnected with said microcontroller for  
9 data communicating with said vending machine controller; and

10

USA-010

- 74 -

11 a mimic MDB interface interconnected with said microcontroller for data  
12 communicating with a plurality of peripheral devices, said plurality of  
13 peripheral devices being interconnected with said mimic MDB interface.  
14  
15

1 18. (Amended) The audit-credit-interactive system in accordance with claim 17, wherein  
2 said vending machine interface is interconnected to at least one of the following: said  
3 vending machine controller multi-[bus-drop]drop-bus interface (MDB), or said vending  
4 machine controller data exchange interface (DEX).  
5

1 19. (Amended) The audit-credit-interactive system in accordance with claim 17, wherein  
2 a first plurality of data is communicated between said vending machine controller and  
3 said vending machine interface, and a second plurality of data [if] is communicated  
4 between said mimic MDB interface and at least one of said plurality of peripheral  
5 devices;  
6  
7 wherein, said audit-credit-interactive system effectuates data communication between  
8 said vending machine controller and at least one of said plurality of peripheral[s] devices  
9 by way of data processing said first plurality of data and said second plurality of data to  
10 provide a common communication protocol between said vending machine controller and  
11 at least one of said plurality of peripheral devices.  
12

1 24. (Amended) The audit-credit-interactive system in accordance with claim 23, wherein  
2 said computing platform is at least one of the following: an online module, a card reader,  
3 a cashless payment device, an audit device, a coin mechanism, a bill validator, a personal  
4 computer, [an online module,] a communication module, or a microprocessor based  
5 system.